

PRODUCT DESCRIPTION

SPECTEC's Intrinsically Safe directional preamplifier for passive magnetic VRS sensors is designed for installation in hazardous locations. It is available in gated and non-gated versions. It is designed to fit a GAUL-16 or similar standard explosion proof junction box.

INSTALLATION

CAUTION: This sensor MUST be installed with an FM approved barrier and following the details specified in the Installation Instruction Document #85053.

SPECIFICATIONS

- Supply Voltage & Current:** 7.5-25Vdc @ ≤ 3mA for 0-5Vo
 13-25Vdc @ ≤ 12mA for 0-12Vo
 3.6Vdc min. @ ≤ 20mA for 0-Vs
- Output Voltage:** See below
 (@ < 20mA sink)
- Frequency Range:** ~5 Hz to 10 kHz
 Up to 40 kHz with increased signal
- Input Sensitivity:** See below
- Gating:** Gated: Channel A only in Forward
 Channel B only in Reverse
 Non-Gated: Channel A & B always on
- Direction:** Forward (A before B): 0 Vdc
 Reverse (B before A): 5 Vdc
- Rise/Fall Time:** .03 μs nominal
- Construction:** Plastic housing
 Solid Epoxy Encapsulation

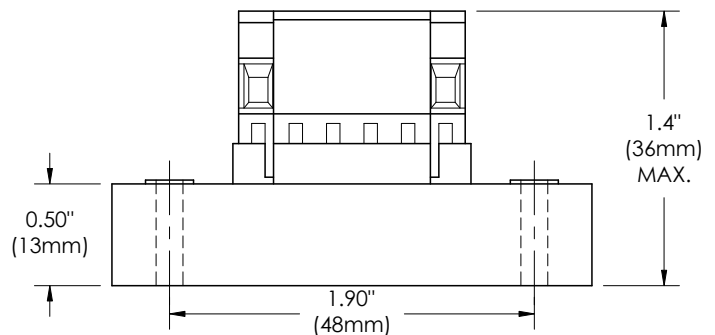
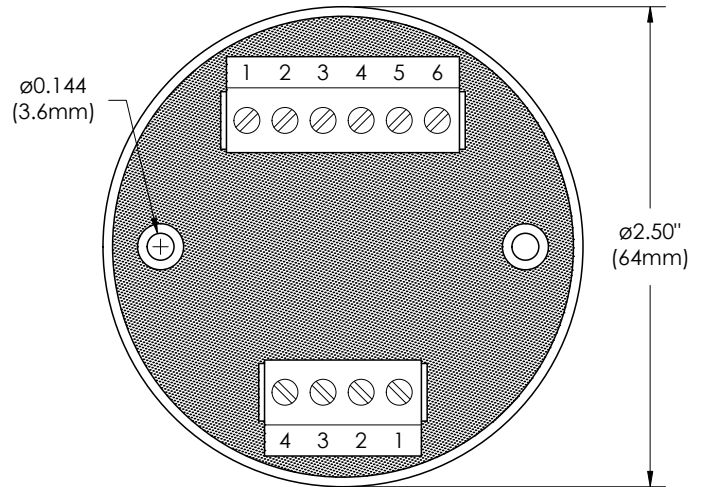
TERMINAL CONNECTIONS

- | | |
|----------------------|----------------------|
| 1 - Supply Voltage | 1 - Coil A + (white) |
| 2 - Common | 2 - Coil A - (black) |
| 3 - Direction | 3 - Coil B + (white) |
| 4 - Output Signal A | 4 - Coil B - (black) |
| 5 - Output Signal B | (IS only see |
| 6 - Output Signal x2 | IS40 & IS41) |

FEATURE SELECTION

- IS4033 -** Mag Preamp (US & C cert.)
- IS4033A -** Mag Preamp (ATEX, UKEX, & IECEx)
- Output Signal
- 1 - 0-5V, NPN - Gated
 - 2 - 0-12V, NPN - Gated
 - 3 - 0-Vs, NPN OC - Gated
 - 5 - 0-5V, NPN - Non-Gated
 - 6 - 0-12V, NPN - Non-Gated
 - 7 - 0-Vs, NPN OC - Non-Gated
- Input Sensitivity
- 0 - 40 mVpp (Standard)
 - 1 - 12 mVpp (High)

For explosion proof junction box refer to bulletin 4001.



CERTIFICATIONS for IS4033

USA:

Intrinsically Safe
 Class I, II, III, Division 1
GROUP ABCDEFG T6...T4
 Class I, Zone 0, AEx ia IIC T6...T4



Canada:

Intrinsically Safe
 Class I, Division 1
GROUP ABCD T6...T4
 Class I, Zone 0, Ex ia IIC T6...T4

T4 @ -40°C ≤ T_{amb} ≤ +85°C
 T5 @ -40°C ≤ T_{amb} ≤ +80°C
 T6 @ -40°C ≤ T_{amb} ≤ +60°C

CERTIFICATIONS for IS4033A

ATEX & UKEX:



II 1 G Ex ia IIC T6...T4 Ga
 FM08ATEX0068X
 FM22UKEX0110X

CE:



Compliance with
 EN50081-1, EN50082-1

IECEx:



Ex ia IIC T6...T4 Ga
 IECEx FMG 16.0003X

T4 @ -40°C ≤ T_{amb} ≤ +85°C
 T5 @ -40°C ≤ T_{amb} ≤ +80°C
 T6 @ -40°C ≤ T_{amb} ≤ +60°C

